U.S. DEPARTMENT OF ENERGY

OFFICE OF SCIENCE

DOE/SC Status Review

of the

Muon g–2 Project

Fermi National Accelerator Laboratory

April 6-7, 2016

Kurt Fisher

Committee Chair

Office of Science, U.S. Department of Energy

http://www.science.doe.gov/opa/

Deliverables – Due Dates

- **Closeout report (prepared in PowerPoint)**
  - Presented Thursday, April 7
  - Instructions—slide 10
  - Template—slide 12
- **Final report draft (prepared in MS Word)**
  - Due Monday, April 11 to Casey (casey.clark@science.doe.gov)
  - Instructions—slide 11

DOE EXECUTIVE SESSION AGENDA

Wednesday, April 6, 2016—Fermilab, Wilson Hall, Comitium

8:00 a.m.	DOE Executive Session	K. Fisher
8:15 a.m.	Program Perspective	T. Lavine
8:25 a.m.	Federal Project Director Perspective	P. Philp
8:35 a.m.	Questions	
8:45 a.m.	Adjourn	

Project and review information is available at:

https://web.fnal.gov/experiment/MuonG2/Reviews/Pages/DOE-Status-Review-April-2016.aspx

Username: G2Mreviewer (case sensitive) **Password: g2mrev**

Review Committee Participants

Kurt Fisher, DOE/SC, Chairperson

SC1
Accelerator

* Rod Gerig, retired ANL
Peter Ostroumov, ANL

SC2
Storage Ring

* Ross Schlueter, LBNL
Sasha Zholents, ANL

SC3
Technical Integration

* Soren Prestemon, LBNL
Howard Gordon, BNL

SC4
Detectors

* Richard Kass, OSU

SC5
Cost and Schedule

* Jerry Kao, DOE/SC
Ron Lutha, DOE/ASO

SC6
Project Management

* Jeff Sims, SLAC
Steve Trotter, ORNL

Observers

Mike Procario, DOE/SC
Ted Lavine, DOE/SC
Petros Rapidis, DOE/SC
Bill Wisniewski, SLAC
Pepin Carolan, DOE/FSO
Paul Philp, DOE/FSO

LEGEND

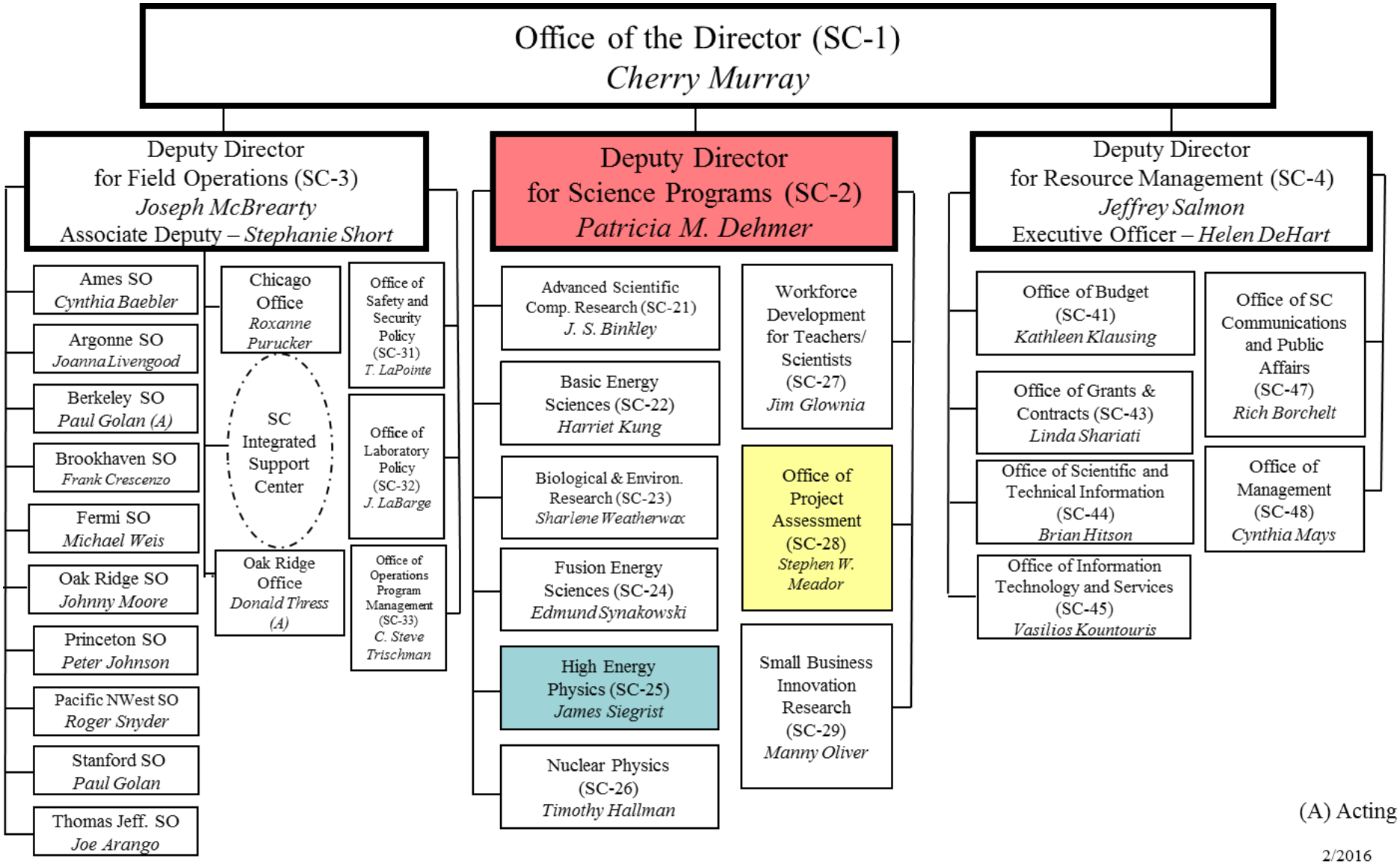
SC Subcommittee
* Chairperson

Count: 12 (excluding observers)

U.S. DEPARTMENT OF ENERGY

SC Organization

OFFICE OF SCIENCE



(A) Acting

2/2016

Charge Questions

1. Are the planned Scope, Schedule and Estimate to Complete updated and credible, including any planned scope enhancements?

2. Has the risk analysis been updated to reflect the real risks for completing the project and are the contingencies acceptable?

3. Are there any significant risks that jeopardize CD-4 completion and require management attention?

Agenda

Wednesday, April 6, 2016—Fermilab, Wilson Hall, Comitium

8:00 am	Executive Session—**Comitium (WH2SE)** .....K. Fisher
8:45 am	Overview of Project and Performance—**One West (WH1W)** ..... C. Polly
9:30 am	Accelerator, Muon Target Station, Beamline, Controls and Instrumentation ..... M. Convery
10:15 am	Break—**Outside of One West**
10:30 am	Overview of Muon Storage Ring, Injection and Shimming ..... P. Winter
11:20 am	Experimental Detectors..... B. Casey
12:00 pm	Lunch—**Second Floor Cross Over**
1:10 pm	Review Photo—**Atrium**
1:20 pm	New Proposed Inflector Design—**One West (WH1W)** ..... V. Kashikin
2:00 pm	Project Path Forward..... C. Polly
2:50 pm	Subcommittee Breakout Session
4:00 pm	Committee Q&A with Project Team
5:00 pm	Full Committee Executive Session
6:30 pm	Adjourn

Thursday, April 7, 2016

8:00 am	Subcommittee Breakout Session
10:00 am	DOE Full Committee Executive Session—Dry Run .....K. Fisher
12:00 pm	Lunch
1:30 pm	Closeout Presentation
2:30 pm	Adjourn

Report Outline/Writing Assignments

Executive Summary ..... Fisher*

1. Introduction ..... Lavine*
2. Technical Systems Evaluation (Charge Questions 1, 2, 3)
   - 2.1 Accelerator Gerig*/SC-1
     - 2.1.1 Findings
     - 2.1.2 Comments
     - 2.1.3 Recommendations
   - 2.2 Storage Ring Schlueter*/SC-2
   - 2.3 Technical Integration Prestemon*/SC-3
   - 2.4 Detectors Kass*/SC-4
3. Environment, Safety and Health (Charge Questions 1, 2, 3) Trotter*/SC-6
4. Cost and Schedule (Charge Questions 1, 2, 3) Kao*/SC-5
5. Project Management (Charge Questions 1, 2, 3) Sims*/SC-6

*Lead

Closeout Presentation

and Final Report

Procedures

Format: Closeout Presentation

(Use PowerPoint / No Smaller than 18 pt Font)

2.1 Use Section Number/Title corresponding to writing assignment list.

List Review Subcommittee Members

List Assigned Charge Questions and Review Committee Answers

2.1.1 Findings – What the project told us

- In bullet form, include your account of factual technical, cost, schedule, and management. Information provided/presented by the Project

2.1.2 Comments – What we think about what the project told us

- In bullet form, include your assessment of project status (observations, concerns, feedback, suggestions, etc.) based on the findings. This section carries more emphasis than the Findings, but does not require an action as do the Recommendations. Do not number your comments.

2.1.3 Recommendations – What we think the project needs to do

1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.

For Critical Decision reviews, include a specific recommendation addressing how the Committee judged the readiness for the CD, *i.e.*:

- **The project is ready to proceed to CD-2; *or***
- **The project is ready to proceed to CD-2, after addressing the following recommendations**

Format: Final Report

(Use MS Word / 12pt Font)

2.1 Use Section Number/Title corresponding to writing assignment list.

2.1.1 Findings – What the project told us

Include a brief narrative description of technical, cost, schedule, management information provided by the project. Each subcommittee will emphasize their area of responsibility.

Cost and schedule subcommittee should provide attachments for approved project cost breakdown and schedule. Management subcommittee should provide attachment for approved project organization and names of personnel.

2.1.2 Comments – What we think about what the project told us

Descriptive material assessing the findings and making observations and conclusions based on the findings. **The committee's answer to the charge questions should be contained within the text of the Comments Section.** Do not number your comments.

2.1.3 Recommendations – What we think the project needs to do

1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.

2.

Please Note: Recommendations are approved by the full committee and presented at the review closeout briefing. Recommendations SHOULD NOT be changed or altered from the closeout report to the Final Report.

Closeout Report on the DOE/SC Status Review of the

Muon g–2 Project

Fermi National Accelerator Laboratory

April 6-7, 2016

Kurt Fisher

Committee Chair

Office of Science, U.S. Department of Energy

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- **Findings**
- **Comments**
- **Recommendations**

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- **Findings**
- **Comments**
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PROJECT STATUS		
Project Type	MIE / Line Item / Cooperative Agreement	
CD-1	Planned:	Actual:
CD-2	Planned:	Actual:
CD-3	Planned:	Actual:
CD-4	Planned:	Actual:
TPC Percent Complete	Planned: _____%	Actual: _____%
TPC Cost to Date		
TPC Committed to Date		
TPC		
TEC		
Contingency Cost (w/Mgmt Reserve)	$	_____% to go
Contingency Schedule on CD-4b	_____months	_____%
CPI Cumulative		
SPI Cumulative		

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- **Comments**
- **Recommendations**